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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/577,632

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Rudolf Singer

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EXAMINER

DEGHAN, QUEENIE S

ART UNIT

PAPER NUMBER

1791

MAIL DATE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/577,632	<b>Applicant(s)</b> SINGER, RUDOLF	
	<b>Examiner</b> QUEENIE DEGHAN	<b>Art Unit</b> 1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 22 January 2010.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) 5-13, 19-21 and 27-30 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 14-18 and 22-26 is/are rejected.
- 7) ☒ Claim(s) 5 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 April 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>4/28/06</u> .   | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election with traverse of Group I, claims 1-5 and 14-26 and species A1 and B1, which is covered by claims 4 and 18 in the reply filed on January 22, 2010 is acknowledged. The traversal is on the ground(s) that an establishment that two or more independent and distinct inventions has been made among the groups. This is not found persuasive because under a national stage application submitted under 35 U.S.C. 371, unity of invention practice is applied. In this case, the Examiner has shown that the common technical feature amongst the groups so as to unite them is a mandrel with a metal material jacket. This is even reiterated by the applicant. Since it has been shown that this technical feature is not a contribution over the prior art, there is no special technical feature that unites the groups.

The requirement is still deemed proper and is therefore made FINAL.

### ***Claim Objections***

2. Claim 5 is objected to because of the following informalities: The term inner supporting structure was previously referred to as the inner self-supporting structure. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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4. Claims 14 and 24-26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

5. Claim 14 recites the limitation "at the rear end" in line 2. There is insufficient antecedent basis for this limitation in the claim.

6. Claim 24 recites the limitation "the front end" in line 2 and "the axis" in line 3. There is insufficient antecedent basis for these limitations in the claim. It appears this claim should depend off of claim 23.

7. Claim 25 recites the limitation "the rear end" in line 2 and "the axis" in line 3. There is insufficient antecedent basis for these limitations in the claim. It appears this claim should depend off of claim 23.

8. Claim 26 recites the limitation "the biasing means" in line 2. There is insufficient antecedent basis for this limitation in the claim. It appears this claims should depend off of claim 14.

### ***Claim Rejections - 35 USC § 102***

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

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10. **Claims 1-4, 14-17, and 23-26 are rejected under 35 U.S.C. 102(e) as being anticipated by Dick et al. (2004/0025540).** Regarding claims 1-4, Dick discloses a mandrel for producing a glass rod comprising a self supporting metal material jacket comprising an outer wall and inner self supporting structure such as ceramic body (3) that essentially forms an annular ring on the inside of the metal jacket ([0002], [0015]-[0017], figure 2).
11. Regarding claims 14 and 26, Dick further discloses pressure springs at a rear end of the mandrel adapted to assure a tight fit between a body and the metal jacket ([0020], [0023]).
12. Regarding claims 15 and 23, Dick further discloses the mandrel is axially symmetrical along its longitudinal axis due to its equally conical shape, the mandrel comprising a front end and a rear end with respect to the flow direction of the glass material ([0002], [0018], figure 2).
13. Regarding claim 16, Dick further discloses the mandrel is a Danner blowpipe ([0002]).
14. Regarding claim 17, Dick further teaches an inner channel for blowing gas through and allows treating the inside surface of the glass tube with at least one gas ([0015]).
15. Regarding claims 24 and 25, Dick further discloses a fixed bearing at the front end of the mandrel adapted to rotate the mandrel about an axis ([0021]) and a floating bearing at the rear adapted to rotate the mandrel ([0021]).

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16. **Claims 1-4 and 15-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Frye et al. (3,236,619).** Regarding claims 1-4 and 18, Frye discloses a mandrel for producing a glass rod comprising a self supporting platinum material jacket comprising an outer wall and inner self supporting structure such as refractory body (21) that essentially forms an annular ring on the inside of the metal jacket (col. 3 lines 41-44, col. 4 lines 14-28, figure 3).

17. Regarding claim 15, Frye further discloses the mandrel is axially symmetrical along its longitudinal axis due to its conical shape (col. 2 line 1, col. 3 lines 72-73, figure 2).

18. Regarding claim 16, Frye further discloses the mandrel is a Danner blowpipe (col. 3 line 19, col. 1 lines 19-21).

19. Regarding claim 17, Frye further teaches an inner channel for blowing gas through and allows treating the inside surface of the glass tube with at least one gas (col. 3 line 74 to col. 4 line 2).

### ***Claim Rejections - 35 USC § 103***

20. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

21. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

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1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

22. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dick et al. (2004/0025540), as applied to claim 1 above in further view of Dick et al.

(6,595,029). Dick does not disclose a coating on the inside surface of the tube.

However, in a separate document, Dick teaches a mandrel comprising a coating which upon contact with an inside surface of the tube being produced is released and accumulates on the inside surface to form a coating thereon (abstract). Such a coating provides for a high chemical resistance on the inside surface of the glass product that would be applicable for many uses such as analytical purposes, light purposes and medical purposes. It would have been obvious to one of ordinary skill in the art at the time of the invention to have utilized the coating technique of Dick '029 in the process of Dick '540 in order to provide for internally hardened tubes that can provide chemical resistance to the inside of the tube for uses such as one already mentioned.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to QUEENIE DEHGHAAN whose telephone number is (571)272-8209. The examiner can normally be reached on Monday through Friday 9:00am - 5:30pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on 571-272-1189. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Queenie Dehghan/  
Examiner, Art Unit 1791